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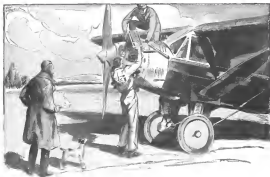
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THE OLDEST AMERICAN AERONAUTICAL MAGAZINE

A HUMANITARIAN PUBLICATION ESTABLISHED 1914

EDWARD P. WARNER, Editor

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The Golf Club and the Aviator

THE OLD WESTBURY GOLF CLUB is embattled. Its members have girded up their loins and taken to the trenches. They have their opinion of aviation as practiced in their neighborhood, and they intend to display it by building an airplane-tight fence. Hereafter, they decree, any aviator who crosses their boundary line at an altitude of less than a hundred feet will have to come through a wire entanglement hung upon steel towers.

It is a temptation to treat the matter lightly. At first sight the idea of building fences to keep airplanes out appears to presuppose a development so far in demand the attention of a professional housewife. Undesirably it is not a joke. The scheme, about the existence of which to say there would be no great technical difficulty, is brought forward with the air of determined reality. It raises the most serious questions, and they will become more serious in the future. If they had not arisen upon Long Island, they would have done so somewhere else a little later. They should be met and settled at once.

It is good legal doctrine that the rights of property are limited to enjoying its reasonable use. The ownership of a piece does not convey the right to play it at three in the morning in an apartment-house. The ownership of land does not give the owner the privilege of entangling it with spring-guns and dead-falls to entrap the innocent public. The property-holder has his legal remedy against trespass by which he suffers actual damage in any substantial right, but the remedy does not lie in the creation of a device likely to have fatal consequences, particularly for a pilot unaware of its existence and coming across country low down in thick weather.

There have been reports that certain lawyers have shaken their heads over the situation that threatens, and that they see no excuse of escape from a golf club's right to put up any kind of a structure that it pleases. With a possibly foolishly energetic born of non-membership in the flat, we hesitate to dissent from the inevitability of

that conclusion, and to everyone more optimistic views. Legislatures and courts have shown a conspicuous willingness, throughout the centuries, to accord property rights in detail to conform to the public consciousness and to the changing demands of a changing civilization. Public conscience and the right of lawful travelers to go with safety upon their way have been factors in defining what an owner can reasonably do. We venture the hope that legislatures can and will prescribe that the erection of fences having no other object than to serve as barriers to aerial navigation is unlawful, bringing no use and proper benefit to the owner and endangering the lives of law-abiding air-farers, and that the courts will sustain the constitutionality of such acts. Some way of control must be found. The clock cannot be turned back to secure conformity in detail with all the original negotiations and interpretations of a legal code formulated long before the first Montgolfier balloon flew.

THERE is one side of the question, and a comparatively simple one. Aerial navigation is going forward, and public opinion will not approve of anything that sets up unnecessary and unreasonable obstructions in its path. If legal obstructions exist, legal means must be found for removing them. But there is another side, and it is less pleasant.

Immediately after the war there were very few airports, and pilots found fields where they might. The grounds of country clubs were often an attractive, and sometimes the only possible, one. Aviation was a novelty, and in most cases the disposition was to make the first pilot who came welcome. Some of them, undoubtedly the vast majority, acted like gentlemen, did not abuse their privileges, and continued to be welcome. Others, to put it quite frankly, behaved like barbarians, displayed the utmost contempt both for the feelings and the property of their hosts, and possessed the air not only for themselves but for all who came after.

Except for an occasional forced landing, that per-

tenair problem is a dead near now. Airports are being created everywhere. With so much flying, the size of a golf hole is a deliberately chosen lack of operations can be approved only in the most extreme. The broad problem of relations between the flying and non-flying sections of the community, however, remains.

An overwhelmingly large proportion of pilots are proud of their profession. They are anxious that it should bring a measure of benefit and a measure of enjoyment to their neighbors. They are self-respecting men, and they want to deserve the respect of their fellow citizens. They create so hard feeling, unless it is very temporary and so the result of misunderstanding.

Outside that great majority, there still exist an innumerable few. They are capable of limited harm. Even though they were constrained at all times to abide by the letter of the Department of Commerce rules, and the inspectors cannot be watching everyone all the time, there is no written rule that can fill the place of common sense and common decency.

The aeronautical world will have to apply its own discipline. Those who persistently fly recklessly or selfishly, or who think it amusing to terrify or disturb those on the ground, must have it made very clear to them that they bear the label: "Not wanted." If employees, field managers, students and the press will co-operate with the police and the Department of Commerce to drive that lesson home, we shall be able to maintain a state of mind towards aviation in which the desire to erect "apple fences" will have little part.

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The Value of a Name

AN INTERNATIONALLY KNOWN character once made the remark: "No matter what you may say, be sure to mention my name." In his claim to the top of his particular ladder he was well enough to realize the advantage of the continued and incessant association of his name with his field of endeavor.

In that quotation there is a bit of sound wisdom which would be profitably applied to the activity of any company engaged in this industry at any time. We do not imply that aeronautical organizations are not aware of the value of publicity. One day at the official desk would dispel any such belief. However, this rapidly changing industry of ours, with its consolidations, mergers and reorganizations, is in such a state today that one hardly knows who is who and what is what for more than twenty-four hours at a time. Well-known company names are changed for new ones over night, and then a bit later are changed back again, so to be exactly new names at the result of a merger or reorganization. In one particular case, the name has been changed three times

and is at present back to where it was originally.

To be sure, "the industry is still in its infancy," as other dapper speakers periodically put it, and there are limitless opportunities to build up a name that will take its place with other "household words." Nevertheless, the sooner that a name does become a household word the more advantageous it will be for the company's advertising campaign. And the more beneficial it will be to the blue ink inside of the sales ledger. Of course, it may in some time be good business policy to alter the firm name or the name of a product, but such cases are relatively few and far between, and if a company has made any sort of a good reputation for a name, it should hang on grimly to at least the "key" part of the name, and not let the vagaries of merger or reorganization obliterate it entirely from the buying public's mind.

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Over-seas Flying and an Editorial Policy

While several cases in the department of where that we have been mentioned, we have determined to withhold these expressions, and thus should be in line with a memorandum in which, during passage, it is stated that it is not to be repeated that we would withhold reference in any possible flight.

THIS IS the third season in which ocean flying has amounted to a month. Since Lindbergh led the American and European continents without stop, and since Maitland and Hengenberg were in Hawaii, the supply of world-beaters on both sides of the Atlantic has been scanty. It remains true, after two years of constant effort and expense (both with dead results, and Lindbergh's flight is the only one which has crossed the North Atlantic, directly from continent to continent, and terminated at the point intended. For everything that could be proved by flying a lapplane across the Atlantic, he furnished the proof. Everything that could be done, he did—and Chaudhary and Ryd coming after him, with Conno and others in the South Atlantic and the Army expedition and Knight-Smith in the Pacific, rounded out the picture.

Since that time, there has been a tragic tale. For every trans-oceanic flight that has succeeded, two or more have failed, and when a lapplane flies the sea commonly swallows up its story. We have surveyed the record from July 1, 1927, down to the present day. No one has improved on Lindbergh's navigation. No one, so far as we know, has improved on Ryd's blind flying performance. No one has improved on the meteorological advice that the Weather Bureau, through Dr. Kewell, is able to give two years ago. When the progress that has been made towards practical oceanic and navigation in the result of all the flights attempted during this period is compared with the appalling loss of lives, some of which represented the very cream of

their countries' piloting experience, with the tremendous cost in time, money, and devotion of effort, and with the loss of public confidence through repeated failure, there is only one conclusion that can be reached: "The thing is not worth while."

We can claim no startling originality for that conclusion. Many others have reached it long since. The three Assistant Secretaries for Aeronautics issued a joint statement, late in the summer of 1927, expressing the gravest concern over the multiplication of trans-Atlantic attempts which contained no word element and taught no new lesson, and urged a halt.

Our own officials stopped with moral suasion, which has had a very limited effect. European governments have gone further. In France, Great Britain, Germany, and Spain there have been attempted restrictive measures that have ranged from refusal of permission to use flying fields up to threat of court martial. Air Ministers and other officials have spoken their disapproval in the most positive terms.

It is not to be hastened in these flights that we about progress would be difficult and halting if there were no one willing to assume great risks for great ends. The aeronautical art of the present is built upon the work of pilots who have never feared to try new experiments and face new dangers. It is not against hazard in itself, but against bare hazard, against hazard assumed without justification or prospect of commensurate gain, that we protest.

Trans-oceanic flights have been undertaken from varied motives, scientific, sporting, and commercial. For some of them, and those very commonly the most planned and most inadequately equipped, the lure of publicity has been a major attraction. To restrict them to their properly earned share of the public's attention would be a very useful measure of discouragement.

This paper addresses itself to the interests of the aircraft industry. We do not consider that those interests are served at the present time by trans-oceanic flights not possessing any important and valuable source of data, method, or of equipment. We do not feel called upon to give them attention. Until further action we shall ignore, editorially and in the news columns, all attempts except those, so far very few in number, which we can regard as likely to make new, substantial, and useful contributions to knowledge and aviation history.

WITH THIS ISSUE, on page 212,

AVIATION inaugurates a department for letters from its readers. We are undertaking to provide a free outlet for your views, whether or not they agree with our own, and for your queries and suggestions. Contributions are cordially invited from all.—THE EDITORS.

Twenty Years Ago

AERONAUTICAL EVENTS happen so rapidly in the present that there is little time or thought to spare for celebrating anniversaries. We risk on from our excitement in the next, but if we never turn to look back we shall have no gauge of progress. There must be a few landmarks to serve as a base of measurement, and no such list could be made up without including the first over-water flight ever successfully completed.

On July 25, 1908, twenty years ago upon the very day when this magazine is reaching its first readers, a visitor arrived on English soil. That country had been approached by steps, it had been reached by swimmers. It had been entered by balloons hovering at the whim of the wind. Never before Louis Blériot had anyone come through the air in a craft under his full control.

Tenacious killing in the easy claim of the air liner today cross from Calais to Dover in twelve minutes. It took Blériot, behind a fairly spartan engine, half an hour. The typical transport plane can lose a quarter or a third of its power and hold its altitude. Blériot, like trans-oceanic fliers just after their take-off, flew upon the very edge of possibility. It is easy to look back from the heights that we have gained and feel a tolerant scorn of the pioneers who made so much of so dissuasive a task, but their technical difficulties were no less acute than those of the present-day record breaker, and they faced the additional handicap of a widespread public conviction that aviation didn't amount to much and never would and that those who practiced it were mildly insane. That first Channel crossing deserves all that can be provided in the way of commemorative celebration. No flight is closer, now, only those at Kitty Hawk five years earlier, nor ever so pioneering.

Commemoration would be worth while, if only for the evidence that Blériot's flight furnished that a good idea once crashed to earth will rise again. Blériot's earliest machines had tail wheels. The idea was a later development. After two decades, the wheel is coming back. Some of his contemporaries were using steel propellers. They, too, are with us open or force, though changed in form. Most important of all, the first flight between Great Britain and the Continent was made with an articulated engine of at least semi-radial form. There crossed a period of half a dozen years when the type had hardly a friend, but when, eighteen years after the Blériot feat, the first non-stop trip was made between continental America and continental Europe the articulated radial was back in its place at the front of the plane.

We shall do well to remember those parallels, and to remember that the ideas and designs fostered that are being allowed to pass to the rubbish-bay today should not be entirely dismissed from mind. They too may have the germ of reasonableness for a prosperous life and within them.

BUILDING A Dealer ORGANIZATION

By LIEUT. W. JACK FRYE
President, Aero Corp. of California

ABOUT THREE YEARS AGO the Aero Corporation of California was formed in Los Angeles with little more tangible in the way of assets than a group of aviation men. We obtained the distributorship for Bagley aircraft in California and Arizona, and for some time found the demand for planes to be as great that we could not make deliveries fast enough. From the first we did not expect this condition to continue for long and made plans to build up a well grounded dealer organization. At the present time the sales and service field of aircraft operations has become a highly competitive one. Aircraft marketing has become a problem demanding the attention of the best brains of the business world, and for this reason we have sought to bring established business men with successful records into the Aero Corporation dealer organization.

There are now six Aero Corporation dealers, in addition to the parent organization, and a distributor branch office in El Paso, Texas, West Texas having been added to our territory. Also we have taken on the distributorship of Fokker single-engine aircraft in California, Arizona, and West Texas, Bendix Pratt & Whitney parts and service have arranged to service La Bled suggest

It is not always possible to know in advance whether a prospective dealer will "fill the bill," and in such a case the Aero Corporation of California gives him a temporary selling franchise on a commission basis before appointing him a regular dealer. In other words, the Aero Corporation's prospects must first make good. And when they do, they are rewarded with a fair and square contract plus 100 per cent distributor co-operation thereafter in building up retail sales volume

in this territory, and are now, representing many parts and supply firms, including the work of managing a dealer organization increasingly more complex.

EACH OF OUR SIX dealers has been selected with great care and we believe that it is better to have a territory entirely without dealer representation than to rush in and make an unwise appointment. E. Harold Smith, sales manager for the Aero Corporation of California, constantly scans the entire territory, visiting all dealers and seeking to strengthen the organization by new appointments wherever it seems advisable. Before any dealer appointment is made the most careful investigation of the dealer prospect is maintained. His cooperation with the local Chamber of Commerce, his

standing with local banks, and his position among the community leaders must be above reproach before he can expect to receive the franchise. Whenever possible, men are selected who already have an established airport, in order that we may be sure of an adequate technical staff for operations and service. Of equal importance is the selection, if possible, of men who are handling the dealership for an automobile or who have had considerable experience in the automotive business. The joint distribution of automobiles and aircraft under a most logical plan and one which is rapidly meeting with favor.

Of course, the most important factor is that the automobile dealer is an experienced salesman with a sales organization trained to meet real competition. In addition to this the auto dealer has a long list of prospects for every automobile owner, particularly in the higher

price class we give him a temporary selling franchise on a commission basis and after he has proved his ability to sell planes and give service, he is rewarded with a formal dealership. Also new dealers are

started on a sliding commission scale, regardless of their apparent worth. The first plane, or demonstrator, is sold to the dealer at full price, and increasing discounts are given on each subsequent plane sold, until the full discount is allowed on all planes sold, including those first sold at the lower discount rate.

In building a well-bred dealer organization there are two factors of the most vital importance. The first is that the dealer should be assured of a closed territory within which he will be free to represent his merchandise, with distributor co-operation, without interference by other agents for the same products. The second factor is that the dealer shall be primarily a unit of the distributor's organization, and not of the manufacturer's. This latter point gains importance when we realize that the dealer may be handling the products of a dozen different factories, and although they all be non-competitive, it is necessary that equal selling effort be accorded each line. This is only possible under intensive distributor management, with the dealer as a unit in the distributor's sales group. In line with this effort to build up a group of distributor dealers rather than factory dealers, we require that all contacts come through the distributor rather than direct between the dealer and factory. Thus the dealer orders all parts, supplies, or new equipment directly through the Aero Corporation and does not contact the manufacturer at all except in a secondary way. We do permit a dealer to accept planes either fly-away from Aero Corporation field, Los Angeles, or from the manufacturer's field.

PROVIDES a summary of the distributor-dealer contract for the distribution of airplanes, parts and supplies, as drawn up by the Aero Corporation of California, will be of interest. The first paragraph provides for the appointment of the dealer as exclusive representative in a closed territory which is definitely outlined, for all products handled by the Aero Corporation of California. The dealer is required to contract for an estimated yearly schedule, with the provision that if factory production proves inadequate to meet the schedule he must accept his pro rata of the product available, in lieu of the schedule for that month.



Standing left to right, E. Harold Smith, sales manager of the Aero Corporation; Paul E. Blanton, Jr., vice-president; and Hoot Duffin, sales manager of American Aircraft Corporation.



Paul Blanton, publicity director of Aero Corporation of California, standing next to the Aero dealers at the Los Angeles field.

The dealer agrees to maintain complete distributors, single models of parts and accessories, and facilities for repair and overhaul. His services include the distribution of the names, addresses, and business interests of his various prospects, and the distributor agrees to solicit these prospects on behalf of the dealer. All prospects within the dealer's territory, whether to places sold by him or not, are reported to the distributor. The distributor agrees to co-operate with the dealer in rendering adequate service on all products sold. In no case is a dealer permitted to make contracts, or warranties, in the name of the distributor.

The Aero Corporation of California reserves the right to sell products within the dealer's territory in events for advertising, merchandise, or service, to sell to nationally advertised firms, or to the United States Government, and the dealer waives all claims for profit or commission on such sales.

THE DEALER agrees to pay one-half the cost of such advertising within his territory as the distributor shall deem advisable, a maximum advertising expenditure being agreed upon in advance. If the dealer fails for half in clearing any risk he agrees to allow the distributor half the commission due if the sale is made through the distributor's assistance. Upon signing the dealership contract, the dealer must submit a substantial cash deposit with the distributor which is thereafter subject to forfeiture by the distributor when necessary for the settlement of any claims, or bills of any sort.

In case of infringement upon a dealer's territory by another Aero Corporation dealer, it is agreed that the distributor shall be the sole arbiter of such claims, and adjustments will be made by deductions from the offending dealer's deposit money. In deciding such questions the residence of the purchaser is disregarded and the territory within which the place is to be operated, or the product sold to be used, is the basis of a decision on territorial infringement. Numerous other clauses are included in the contract defining in detail the protection of closed territories granted and the adjustments to be made in case of infringement.

There are a number of other provisions in the contract relating to commissions, guarantees, etc., but the examples given will indicate the basis of the agreement entered into between the Aero Corporation and its dealers.

In conducting the business of its dealer group, the Aero Corporation of California has adopted the premise that if the supplier has actually brought a new and important product to the business world, the application of which can increase profits and speed up commerce and industry, then that fact should first be demonstrated at the hands of the business of selling and servicing aircraft. Therefore every possible advantage is taken of the ability of planes to move men and supplies rapidly from point to point, to make wider corrective contacts possible, and to increase sales turnover with fewer stock inventories, thus increasing the margin of profit on a given investment.

One of the most valuable provisions is the monthly tour of the Aero Corporation territory which is made by E. Earl Smith, sales manager. On that tour he contacts all dealers and covers important flying order, each month flying a different model plane in order that the complete line may be shown to the public in spite of the fact

that each individual dealer is able to keep but one or two models on hand at all times. During those trips it is met at all seasons to fly an average of 2,000 miles per week, in addition to conducting business, giving talks to business and school groups, and making many short demonstration flights. During these tours Mr. Smith demonstrates to the dealer all of the latest information, confidential or otherwise, on new models, new sales and service methods, new financing plans, etc. Much favorable publicity is obtained during these tours by co-operation between the dealers and the Aero Corporation publicity department, managed by Fred Harrison. Publicity stories are prepared by Harrison and forwarded to dealers along Smith's route. These stories are usually of sufficient popular interest that the various newspapers give them good space with the result that the tour is primed for the arrival of the sales manager and his demonstrator. Talks before business men and high school or college groups are often arranged in advance in order that Smith may have every opportunity to tell of the rapid progress being made in the field of aviation.

During those trips Smith attempts to gather all possible information on prospective purchasers of aircraft within the various territories and upon his return to the head office a careful analysis is made of these prospects. Groups and recommendations are submitted to the dealer. It may be found that crop dusting is needed within a certain area and if so, the dealer in that territory is sent all available information on the adaptation of aircraft to crop dusting. Information on survey work, patrol routes over forest or ocean areas, needs of all companies, mining companies, or large industrial firms, all are analyzed by Aero Corporation officials and the results sent to the dealer with specific recommendations on how to sell to the groups in question.

FURTHER dealer cooperation is provided by the Aero Corporation in the form of sending an efficient and experienced salesman or pilot to visit a dealer's territory. Also, when a new route or airport dedication is scheduled the Aero Corporation sends adequate representation of planes and pilots to back up the showing of the local dealer. A publicity man is also sent to these events, or publicity is handled through the central office in Los Angeles. In line with the plan of having dealers conduct all relations with the factories represented, through the Aero Corporation, a distributor office is sent to all important factory meetings to represent the distributor-dealer group there and to bring back any important information.

One of the most productive departments maintained by the Aero Corporation is that handling publicity and information, under the direction of Mr. Harrison. This department receives all news items from each dealer, prepares these in the form of newspaper stories for newspapers and trade magazines and sends them out to all interested parties, including the home town paper of the dealer submitting the news. A complete copy of all such news items sent out is regularly forwarded to all dealers for their information. Also all news or information from outside sources is forwarded to the dealers by the publicity department. Cuts and maps showing new places or products are forwarded to the dealer direct and they receive all factory home copies in addition to a regular home copy published by the Aero Corporation.



Such centralized handling of all news, and information, has been of the greatest assistance in holding the spirit of the dealer group.

The final test of an efficient dealer organization is the kind of owner service rendered. It is here that the airplane most clearly displays its superiority in spending its business for it is possible to carry a complete line of all parts and supplies at the Aero Corporation headquarters only and still dispatch any needed part to a dealer by plane with a negligible delay, thus reducing the stock with which the dealer must be burdened. A "Witchdoctor" Bagderick is maintained by the Aero Corporation for just such emergencies in servicing or for the quick transportation of a sales executive where help is needed on an important contract. Where a major unit such as landing gear, engine, or a complete wing is needed in a hurry it is possible to fly a plane to the dealer, dismantle the part required, and place it in the crissled plane, leaving the distributor's plane to be refitted in a day or two with parts shipped by train. Complete engines can be flown to the Aero Corporation shops in emergencies, and these completely overhauled in the shop, which operates 24-hour service, with 17 licensed aircraft mechanics working under the direction of Walter A. Hanchett, shop superintendent.

ONE OF THE GREATEST ASSISTANCE in rendering rapid service in the airline operated through its territory by Standard Air Lines, a subsidiary of the Aero Corporation of California. This line flying large Fokker cabin planes, makes it possible to regularly transport emergency executives or aircraft supplies over great distances at great speed, and at negligible expense. In addition to the main service flight of the Aero Corporation at the Los Angeles field, a secondary service center is being established at the Aero Corporation field, El Paso, Texas, and

still another Aero Corporation distributor service center will soon be created probably at Oakland, California. Thus no dealer will at any time be more than a few hours by air from a complete stock of all parts and a complete in-house service organization.

In the final analysis, it is the rapid transportation of supplies and executives which builds volume business at a comparatively low investment. Bringing complete distributor service within a few hours of any owner helps greatly in selling planes and keeping them sold by maintaining a continuous news and information service keeps the dealers in their toes and enthusiastic. A regular tour by the sales manager with real assistance in obtaining and closing prospects is the key to the whole scheme. After all it is necessary in most cases to get your prospects into the air in order to sell them. The publicity given sales tours conducted by Mr. Smith, attracts many business men to the field for demonstration flights who would not ordinarily be interested. Even though they do not buy at once, if they have downed and are offered to continue flying these men will usually start along flying instruction. This keeps the dealer's flying staff busy, supplies a steady income for current expenses, and what is more important, we have found that one of every six graduates of our flying schools have an airplane. We believe this "iron snail" flies before they "bail" and have a total of 172 students of flying enrolled at the main Aero Corporation terminal in Los Angeles. This figure is probably doubled by other Aero Corporation dealers throughout the territory.

However, student training is another subject and a secondary one to the building of a dealer group. Our dealer organizations were first built up by the methods outlined. It is now a loyal and efficient group, and we look forward to continuing the volume of sales which applied business methods warrant.

THE AMERICAN AIRPLANE MARKET IN China



A Waco "Whisper" parked, seen at a local airport in China.

IN CANTON, on an island called Tai Sha Tzu, is located one of the few up-to-date military air services units to be found in China. It is at the present time headed by a very efficient and well educated Cantonese pilot by the name of General Chang Wei-chang. General Chang learned to fly at the old Curtiss School, Long Island, N. Y., prior to the World War.

At Canton the organization of the Military department follows closely that in effect in the United States Army Air Corps at the present time. The men are very efficient as pilots, the mechanics are well versed in their trades, the morale is high, with corresponding discipline all that is desired, and the same much different from that commonly found in military circles in China.

Up to the summer of 1938 all the planes in use at Canton were of European make, principally French, as France did not hesitate to sell Chinese all the military aircraft they could buy. Because the United States and Great Britain adhered to treaty agreements and would not sell planes for military purposes, they suffered accordingly as the procurers of available aircraft became until the recent demand for commercial planes.

THROUGHOUT THE ACTIVITY AND EFFORTS of Frederic H. Halse, vice-consul attached to the Consulate General's office in Canton, the first commercial airplanes were ordered from the United States. These were of the well known Ryan type, and the master General Chang ordered Ryan was without doubt the lastest flight of Lindbergh across the Atlantic. The authorities in the United States finally permitted commercial airplanes to be shipped to Canton, and immediately upon receipt of these planes the General and his co-pilots started a "round China" tour which was highly successful. They encountered absolutely no mechanical trouble on this flight. They were received with enthusiasm at every city they visited, and the trip finally established the dependability of American aircraft in the minds of all Chinese interested in this new mode of transportation, with the result that many organizations sprang up to study the possibilities of commercial aviation in the various provinces of China.

The first result directly beneficial to American manufacturers was the order for five planes of similar design

and capacity for the Wuhan Association at Hankow. This order was placed through an American importer, and in a very short time the airplanes arrived—in fact, much too soon for the Chinese, who were totally unprepared for them. Up to that time their only experience had been with European material, which took from three to five months for arrival, and they were astonished to receive such rapid service. This feature alone will help American makers to secure future business, as it has now been established that they can give much better delivery than can European manufacturers.

When we go back to Canton for a minute and search for that hint all the people received really close American-made planes, because usually everyone connected with the South China Aviation Bureau obtained his training in the United States. In Canton they have a small factory engaged in turning out light training planes, manned by aviators lately employed by various American aircraft factories. They have learned their art very well, and their finished product compares very favorably with that obtained in the United States, except that they must make the planes from spare material, being unable at the present time to obtain up-to-date aircraft materials when needed. However, this will soon be taken care of by importers in Shanghai carrying such materials in stock at all times, for their benefit. Engines will be needed, which will undoubtedly be ordered from the various American makers through importers located in Shanghai. While the business is right at present for this particular phase of activity in Chinese aviation, despite, it may soon grow to large proportions. It should be kept in mind, however, as the engine, instrument and accessory business will go to foreign concerns, there being no facilities for the manufacture of these articles in China at present nor any such attempt to be undertaken for a long time, it is thought.

We cannot get too much across on the importance of this South China Aviation Bureau, for it has been in existence for a long time and the military authorities in every adjacent province look to General Chang for information and advice concerning their future aviation activities. The Canton Bureau really has accomplished

things and deserves the confidence placed in it. And since it is so partial to American machinery, it should be no trouble for the American exporters now in the field to secure and hold this business in its entirety.

Another angle to the situation is that three Cantonese pilots being turned out compare very favorably with those found in America and Europe, and will therefore soon be in great demand all over China. Other provisions will have to depend on this organization for their trained personnel, and since all these men are favorable to American materials, we have then another anchor to windward for American manufacturers. Unfortunately for European interests and fortunate for ours, was the French episode at Canton in which many obsolete, worn-out airplanes were unloaded on the unsuspecting buyers at an enormous profit for some one, now claimed to be a Chinese go-between. The fact of the case remains, however,



Flight plane of a local passenger, seen while Ryan biplane mentioned by The Aviation Herald Company, Inc.

A biplane passenger plane, seen while Ryan biplane mentioned by The Aviation Herald Company, Inc.

Mr. Baskey was sent out by the former Mahoney-Ryan Airplane Company, new Ryan Aircraft Corporation, in assembly, flight test, and delivery to the Wuhan Aviation Bureau five Ryan monoplanes—designated the first commercial airplane venture in China. Later Mr. Baskey was induced by the L. E. Gale Company at Shanghai and Hankow to remain in China in the interests of American aviation. It was thought that being a pioneer in the commercial development of aviation in the United States, his experience and advice could be used advantageously with Chinese organizations that were showing some interest. This assumption proved to be a fact, as Mr. Baskey was able to sell two American planes in Hongkong and five in Canton within a short time after he arrived in South China.

that they received a large quantity of practically worthless planes.

Then later they purchased ten new planes of the light plane type from another country, and quite recently had much trouble with the engine due to a mistake in the engine factory, wherein too light pistons had been installed. Upon flight testing, the engine became overheated, "stuck" and caused forced landings, one of which resulted in a near fatality for two pilots. This was not conducive to the furtherance of that country's airplane business.

In conclusion I would say that we should watch carefully the Canton Bureau, giving them all the help we can possibly offer, for it will come back to the favor of each national business for American interests. They, themselves, have prepared the ground, all we have to do is to follow up, at all times give them exactly what they want, and sell or re-sell up to stated quality and performance.



Advertising Pays... WHEN Good

By R. SIDNEY BOWEN, Jr.

ACCORDING to literary history, Emerson once wrote, that "If a man builds a mouse-trap better than any other mouse-trap, even though he live in the woods, the public will test a path to his door." That may have been very true in Emerson's time, but in this day of top speed business and highly competitive selling, the mouse-trap manufacturer who does not advertise will be faced with a lonely existence outside the marketing place and the headlines.

Fortunately, for some publications in particular and a few scattered national publications in general, manufacturers of aeronautical products in this country do not confute with Emerson's viewpoint, but instead are firm believers in the idea of advertising in an attempt to induce the buying public to purchase its neighborhood airplane factories, etc. But although that belief in advertising may have existed in far back to the first flight at Kitty Hawk, it is only of recent years that commercial business perceived it to be just into practice in any great extent. However, today aeronautical advertising, particularly the publication type, is as well as its own and a profitable one too, if the fact, that practically every worth while advertising agency in the country has an entire account in its books, may be regarded as an indication.

THAT advertising specialists, who have hatched their wings in the aeronautical air have not necessarily straggled, and in some cases succeeded, to do a good job, would be just as much overrated consideration. To state that aeronautical advertising is the lone bring on a par with the advertising of other industries would, in our humble opinion, be more or less correct. Thousands of airplane sales have been made, to be sure, and perhaps advertising played a large part, but we call attention to that fact that up until quite recently, competitive commercial selling had not entered the picture. The majority of airplanes have been bought, not sold.

We also admit that the advertising specialist has been forced to grasp what he could in an extremely short space of time. To him, aeronautics was something entirely new that demanded the creation of an entirely new market. Undoubtedly it has been the better progress and development of a new industry that has prevented him from taking sufficient time to study the tools with which he must work, and the tests which he must accomplish.

Like everything else in the aeronautical industry, aeronautical publications have undergone considerable change. It is not a short time ago when aeronautical manufacturers knew very little about correct advertising

procedure, and advertising specialists knew even less about aeronautics, and aero publications were all divided at more or less the same time of reader—the members of the governmental air services and the members of the few existing commercial aviation firms. Then suddenly the whole aeronautical picture changed, and kept changing, and the result is that now we have all types and sizes of aero publications, each striving to please and hold a definite type of reader. And each of these types of readers represents a different aero market to be reached through advertising.

AERONAUTICAL advertising in general, however, appears to be all of the same nature and not prepared for, nor destined at, a definite market. The advertising specialist does not seem to be maintaining the various types of buyers. An advertisement that one finds in a strictly trade publication will be found to be identical with a

A LANDING FIELD FLOODLIGHT WITH A 180-DEGREE SPREAD

For the purpose of illuminating a landing field, Crouse-Hinds has developed a floodlight which gives a uniform, glare-free illumination over a 180-degree arc. This is accomplished by the use of a special lens and a carefully selected lamp.

CROUSE-HINDS

Manufacturers of lighting equipment for aviation and other industries.

An example of a sharp and intelligently prepared advertisement of aeronautical equipment

IT IS ADVERTISING

particular company's advertisement appearing in an aero publication of popular and private flying nature. As an example of misplaced aeronautical advertising we write of an advertisement that appeared in a recent issue of a popular aero publication. The advertisement was that of a manufacturer of military aircraft, and called attention to his products which have won the approval of our air services and the air services of other countries. All of the advertising copy is un-

designedly true. But, imagine the thrill of the private flier in seeing a right honorific place or an observation—significance, also, the thrill in owning a biplane or an airplane!

In general the layout and typographical make-up of the average aeronautical advertisement has an "eye-appeal" that is even better than that found in advertising of other industries.

Even the last editorially attractive aero publications will be found to carry well made-up and eye-appealing advertising. Undoubtedly that is made possible by the fact that as the airplane one has a subject that is rather a cheap and heavy in the matter of potential display and presentation.

Yet let it not be assumed that anyone could do as well. The advertising specialist has been, and still has, one hundred per cent in his effort to arrest the attention of the reader. It is what follows after the attention is most arrested that indicates room for considerable improvement.

In magazine and periodical advertising there are three stages through which the advertisements of a product pass before it goes out of existence by being withdrawn from the market for any one of a number of reasons.

BERRY BROTHERS

AIRCRAFT DIVISION

Manufacturers of aircraft and engine parts.

CURTISS FLYING SERVICE

NEW AIRCRAFT TIME-PAYMENT PLAN

Write for details.

Shows: A very good example of traditional advertising. Look: A representative of a dealer advertisement that is one of the standard units of the introductory type.

The first stage is known as the "Initiating or introductory stage." This stage is for the advertising of brand new products placed on the market to fill a brand new need or use in the daily life of the world. As an example, electric refrigeration units for the home would fall under this stage.

Fasten the introductory stage: the advertising of a product passes into the second or "Competitive stage," which of course is the most common stage of advertising, and of the type that we meet hundreds and thousands of times each day.

The third and final stage of advertising is known as the "Retentive stage" and is composed of the advertising of establishments or products, the names of which are significant in themselves as to the product, its quality, utility, value, price, etc., without the addition of more than half a dozen words of copy. The advertisements of internationally known jewelry houses for example will be used as being of the Retentive stage type.

For the purpose of explanation we have stressed the

three stages of magazine and periodical advertising. However, it must not be assumed that all products pass from one stage to another and then into oblivion. As a matter of fact, part of a product's advertising can be in the introductory stage, part in the Competitive, and perhaps part in the Retentive stage. And, also, it can pass through all three stages and return to the Competitive. Or perhaps it may never leave one of the three stages. All such changes are dependent on a large extent upon market conditions and the judgment of the specialists handling the advertising of the particular product.

It is of course well known that there are many types of advertisements that can be used in any one or all of the three stages. For example, there are testimonial advertisements, which of course contain assertion of user or demonstrated opinion of merit; educational advertisements which suggest the reader with facts regarding activity or history under this individual product format, but which by their very nature assert that end, wholesale or trade advertisements which are directed at distributors and dealers, "cause-or" advertisements which are "keyed" so that the advertiser may obtain some idea of the profusive value of various mediums, contest advertisements, and many other types are common to commerce.

From a study of present day aeronautical advertising we draw the conclusion that it is fifty per cent introductory and fifty per cent Competitive, with a gradually increasing tendency toward a largely retentive percentage. A study of the average price of copy, though, leaves us somewhat in doubt as to what particular stage the advertisement represents. And although the advertising stage is of no consequence whatever to the reader, the determining factor in the introductory stage should be of considerable assistance to the copywriter in preparing his sales message.

Sometimes we can not help but feel that a limited knowledge of the product has, of necessity, forced the average aeronautical copywriter to call extensively upon his vast and truly remarkable vocabulary of suggestive adjectives and adjectives, that have little of any connection with the product advertised. In fact, we are to remark that many pieces of copy read like bedtime stories or bits of Yeatsian and Longfellowian poetry. It is the opinion of the field of literature, rather than logical and conclusive reasoning why one should purchase the product advertised.

Taking one or two bits of copy at random we read: "The heart of a Gipsy girl, and the shyness of a butterfly—fly it, if the public owner will relinquish the stick." Sometimes, we believe that it is an investment of some eight thousand dollars in a flying Gipsy girl and not jealousy that would cause the owner to refuse to relinquish the stick to us, if we asked to fly it.

"He is just a man, whose rhythms in life is not in tune with traffic lights and detours. So he's going to fly." Let us hope when he does, that his rhythm in life is in tune with Department of Commerce and best flying field regulations, else he will do very little flying!

Seriously speaking, or writing, such types of copy make good reading and are perhaps a bit impressive (in the right direction), but they most definitely do not build a real sales message for the reader and prospective purchaser. And particularly in case of the former

which appeared in a trade aero publication, it is of no value to the dealer or distributor who may be seeking a good reliable product to handle. Incidentally, copy of the above nature is not destined to stimulate advertising alone, by any manner of means. One finds it in engine, fuel, accessory, equipment and airline advertising as well.

Admitted, though, as a matter of fact, seen to be considerably more enlightening and "helpful" on their advertising. It is of course true that they are selling a service and not a product, but the fundamental principles of advertising procedure are more or less the same. There is one thing, however, which strikes us as being rather conspicuous, but by its absence in the general run of airline advertising. That is the feature of some beauty while en route.

Not every traveler is in a terrible rush to get to his destination and therefore the element of speed is not such a deciding factor. The train traveler may read a bit, or drink a bit, and be content that that part of his trip which he knows from experience, or has been told, will interest him with its scenic attractions, and then he spends his time gazing out of the car window. For those who have never flown over parts of the country before the scenic panorama, etc., there exists a need that will live long in memory. More desirable of the route to be flown in addition to the benefits to be derived from speed, comfort and safety would undoubtedly strengthen airline advertising all the more. It also might be well for the airline advertiser to bear in mind the although he is primarily selling a service he is also indirectly selling the airplane which is the means by which the service is rendered. The layman passenger might be interested in the construction and performance of this new type of airplane. It is not suggested that airline advertisers attempt to describe the technical details of their planes or even attempt such a thing in a small way. The average passenger is not an engineer and therefore that sort of thing would make very little, if any, impression upon him. However, a non-technical description, which would give the layman passenger some idea as to the actual flying power of the wings, for example, the sturdiness of the fuselage construction, and the power of the engines, etc., might remove what unfavorable impressions he may have regarding safety. The foregoing applies particularly to the far less, who at present seem to have less faith in the airplane than the sterner members of the business race.

In conclusion, we might add that the aeronautical advertising copy writer is an entity at least for the present state of affairs. The manufacturer himself has a responsibility of supervision which then far he has apparently permitted to slide by the board. Undoubtedly an increased amount of co-operation between the manufacturer as his representative and the advertising agent, will bring about far better results. From now on advertising will play a larger and more important part in a merchandising program. More-owned is foreseen, as the saying goes—we humbly suggest that advertising copy be prepared for, and directed at, a definite market whether it be retail or wholesale, and that it, copy contains and selling facts that will enhance the importance of the product in the minds of the readers and that the copy be written statements of value that can be used up to in actual time. Advertiser flying joys when it is good advertising.

THE Boeing (MODEL 100) SPORT PLANE

TO MEET the demand of the private owner for an airplane of high speed and unusual maneuverability, the Boeing Airplane Company, Seattle, Wash., has designed one of its Army single motor fighter models resulting in a sport plane known as the Boeing model 100. The military model of this craft was the one used by Captain Ira Baker in his recent Pan-American S. speed flight under Army auspices. The model 100 is powered with a 450 hp. Pratt & Whitney "Wasp" engine, equipped with 2 to 1 main supercharger.

Designed in use exclusively in the structure of the airplane which is a highly staggered, single bay type. The plane has an overall length of 25 ft., 16 in., an overall height of 9 ft., 7 in., an upper wing span of 30 ft., 1 in., and a lower wing span of 26 ft., 4 in. The weight empty 1,675 lb., the useful load of 810 lb., and the gross weight loaded 2,685 lb. With a high speed of 153 m.p.h., the plane has a landing speed of 56 m.p.h. The rate of climb at sea level is 2,400 ft. per second and the service ceiling 24,000 ft. The fuel capacity is 15,500 ft. in 20 min. and 10,000 ft. in 540 min.

The upper wing is flat and the lower wing has a

deflected angle of 2 deg. Incidence of upper and lower wings is zero. Chord of the upper wing is 60 in., and that of the lower wing 45 in. The gap at the center is 36.3 in., and the stagger is 32 in. The upper wing has an area of 341.4 sq. ft., and the lower wing of 85.1 sq. ft., giving a total wing area of 227.5 sq. ft.

The design of the model is such that the position of the polar with reference to the wings and fuselage provides maximum vision both for maneuvering and for landing. The cowling and windshield construction also contribute to the visibility.

Conventional wood construction is used in the wings and of the model 100, spruce box spars and spruce and mahogany plywood ribs being employed with fabric covering. The fuselage is built of square duralumin tubing with stringers of chrome molybdenum steel and duralumin bolted on. The engine mounting is a welded steel structure of chrome molybdenum steel tubing and sheet. This seat is bolted to the front end of the duralumin longeron of the fuselage. Particular care is taken in fastening the duralumin tubing and fittings both inside and outside to prevent corrosion. This type of construction is light and rigid and has been tested in long service. The fuselage is also fabric covered.

"X" type wingstap and cable struts are used in the external bracing. The landing wires are braced stream-line sections, there being two pairs of flying wires and one of landing wires. The landing wires are in the plane of the rear upper spar and front lower spar.

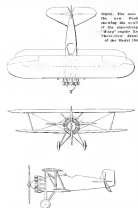
Tail sections and ailerons are of duralumin construction throughout, the bolts being carried through the



Side view of the Boeing Model 100, a new sport plane built in the Air Forces production for a civilian owner before

dashment skin. Sufficient heating, however, is provided normally to stiffen the skin against buckling. Static tests have been conducted on these surfaces and have indicated that their load factors surpass the standard pursuit airplane requirements. The fin is adjustable on the ground and the horizontal stabilizer is adjustable in flight.

Landing gear is of the split axle type incorporating the Boeing oleo shock absorbing unit in the forward strut. Tires 30x2 in. in size and Bendix brakes operated from the rudder pedal are part of the equipment. The Boeing oleo tail wheel is employed and is mounted in the extreme end of the fuselage just under the rudder. The



Right: View from the rear showing the location of the retractable "steep" main landing gear. Below: Side elevation of the Model 130.

The booster oil is operated from the cockpit. A main fuel tank of 57 gal. capacity is built into the fuselage and there are two 19 gal. tanks in the upper wing. A 6½ gallon oil tank with additional two gallon expansion line is mounted above the main gasoline tank. Copper fuel and oil lines are provided. A "float" type of fuel extinguisher is mounted just forward of the fin and with control located in the cockpit. To control engine temperature a shutter is built into the nose cowl and operated from the cockpit.

The Boeing model 130 is manufactured under Department of Commerce approved type certificate No. 132 and is built to U. S. Air Service specifications for a single seat pursuit airplane. The specifications as furnished by the manufacturer to AVIATION are as follows:

Length overall	20 ft. 11 in.
Height overall	9 ft. 7 in.
Span upper wing	20 ft. 4 in.
Span lower wing	24 ft. 4 in.
Chord upper wing	60 in.
Chord lower wing	48 in.
Total wing area	227.5 sq. ft.
Aileron area	12.8 sq. ft.
Stabilizer area	19.9 sq. ft.
Canvasser area	13.4 sq. ft.
Fus area	1.6 sq. ft.
Rudder area	8.2 sq. ft.
Dihedral upper wing	0 deg.
Dihedral lower wing	2 deg.
Incidence upper wing	0 deg.
Incidence lower wing	0 deg.
Gap at center	58.5 in.
Strutter	32 in.
Useful load	916 lb.
Gross weight loaded	2,597 lb.
High speed	165 m.p.h.
Landing speed	56 m.p.h.
Rate of climb	2,600 ft. per min.
Climb in 10 min.	15,800 ft.
Climb to 10,000 ft.	5.40 min.
Service ceiling	24,000 ft.
Wing loading	12.8 lb. per sq. ft.
Power loading	5.97 lb. per hp.

tail wheel is swiveling and is equipped with a Boeing patented shock which has a replaceable knife edge.

Particular attention has been given to the design of the cockpit to the comfort of the pilot and to the accessibility of the outside instruments. The seat is designed for a seat type parachute pack and is adjustable vertically 4 in. A baggage compartment having a capacity of 5 cu. ft. also is provided. Included in the instrument equipment are, a fuel pressure gauge, oil pressure gauge, oil temperature gauge, cylinder temperature gauge, tachometer, fuel level gauge, speed indicator, altimeter bank and turn indicator, and compass.

Power plant equipment includes an Eclipse hand starter with trip located in the cockpit for operation by the pilot and an additional trip accessible from a point adjacent to the hand crank. A standard steel propeller 9 ft., 2 in., in diameter and adjustable is also included.



THE *Financing* OF AIRCRAFT SALES

Some Interesting Facts About a Recently Inaugurated Time Payment Plan That Not Only Covers the Purchase of New Planes But Used Planes and Repair Work as Well.

By WILLIS PARKER

THE RECENT announcement by Alexander Aircraft Company, Colorado Springs, Colo., of a new time payment plan is a naturally significant one inasmuch as it indicates that moneyed interests are beginning to recognize that financing time payments is not such a risk as to demand a "premium of flesh" for the accommodation. The plan is the result of more than two years' study on the part of an eminent financial authority and an aviator who has the background of many years' experience in automobile finance and who is supported by equally eminent financiers of the Pike Peak region. The "arbitrage" of the plan remains a closely guarded secret, but after several hours confidential discussion of the plan with him and confidentially showing the "arbitrage" of the scheme, the writer is certain that a local proof method of handling installment sales has been constructed and that it will have the effect of causing other finance companies to modify their viewpoints.

We shall consider the plan from the standpoint of airplane merchandising as general and not from the standpoint of any one manufacturer. However, since the old plan of the Alexander Company was perhaps as liberal as any offered, we shall make comparison of the new plan with the old, and, for the sake of contrast, offering we shall suppose in our hypothetical sale that the list price of the plane, factory direct, is \$40,000.

Under the old Alexander plan the carrying charge decreased as the amount of down payment increased. The minimum acceptable down payment was 30 per cent with a carrying charge of 11 per cent. But the 30 per cent was not 30 per cent of \$40,000, but 30 per cent of the list price plus 11 per cent, since the 11 per cent carrying charge was based, not upon the unpaid balance, but upon the list price of the plane. If the down payment were 40 per cent, the carrying charge was 9 per cent. Since the new plan offered by the Alexander Company is based upon a minimum down payment of 40 per cent, we

shall use this figure throughout our hypothetical sale. The tables under the old plan follow:

\$40,000	—list price of the plane
300	—carrying charge of 0 per cent of list price
—	—total cost of plane
1,744	—down payment of 40 per cent.
\$23,256	—balance due to be paid in monthly installments of \$261.60 each
Under the new plan the tables follow.	
\$40,000	—list price of airplane
1,600	—down payment of 40 per cent
2,940	—balance due
300	—carrying charge of 10 per cent
\$2,640	—amount to be paid within two months in semi-monthly installments of \$132 each, equaling \$264 a month

It is readily seen that the purchaser pays less for his plane by \$120 under the new plan than he would under the old. The monthly payment is only \$2.40 more.

No insurance is required in either case. Before further comparing the old and new plan, let us consider a finance plan recently offered nationally by an aviator corporation.

This firm demands that insurance be carried on every plane whose purchase it finances, and, judging from their hypothetical examples, it appears that the insurance premium is approximately 12 per cent of the list price of the plane. This company considers the total cost to be the list price plus the insurance premium. The finance

that is because the great masses of the people do not need aviation now, as they need it in the future.

"There seems to be a wonderful future in aviation. So we are going to build the best airplane we can, and if it does develop, we will be ready."

Early in September, 1925, the Fords took up what was to be known as route No. 5. At the double financial disadvantage to the plan was the fact that the United States mails over both the Chicago and the Cleveland line. On Sept. 8, Postmaster General Henry S. New arrived in Detroit and held a very brief conference with Henry Ford and William B. Mayo. The Post Office Department, at that time, had advanced no bill on right proposed air mail routes to operate, in the main, as sort of feeder lines to the government-operated transcontinental mail line. These eight were as follows: Boston-New York, Chicago-Birmingham, Chicago-Minneapolis, Chicago-Port Worth, Chicago-St. Louis, Elkhart-Tulsa, Salt Lake City-Los Angeles, Los Angeles-Seattle.

Each covering the above routes was to be opened on Sept. 15. Meanwhile, the Post Office Department had several additional routes over which it hoped to extend the air mail system. One of these was between Detroit and Chicago, and another between Detroit and Cleveland, both being routes over which Mr. Ford already was nearly operating his non-profit airline.

THIS IT WAS that Mr. New went to Detroit and asked the manufacturer to take over the responsibility of carrying the mails on his lines. Following the conference, the Ford Motor Company announced that they would go through the formality of bidding for the mail routes.

It seems needless to say that contracts for both routes were awarded the Ford company, the routes becoming known as C-A-M-6 and C-A-M-7. But we will get to that later, when there were a number of significant things to take place between that September and the following February, when the mail lines started.

Probably the foremost of these was the first Ford Airplane Reliability Tour, an event related to commercial airplanes of any type, that has been held anywhere since, and has become known as the National Air Tour. Sometime during the summer of 1925 the Detroit Board of Commerce, through Harry J. Campbell, the board's vice-president and executive secretary, conceived the idea of the tour as being an aerial parade to the famous Glidden automobile tour of many years before. The Glidden tour had contributed something to the business of building and selling automobiles. Why could not an aerial Glidden do the same thing for the aircraft industry? The idea was greatly extended, and Mr. E. H. Ford, who at the time was chief engineer of the Ford Motor Company, took over the tour as being an aerial parade to the famous Glidden automobile tour of many years before. The Glidden tour had contributed something to the business of building and selling automobiles. Why could not an aerial Glidden do the same thing for the aircraft industry? The idea was greatly extended, and Mr. E. H. Ford, who at the time was chief engineer of the Ford Motor Company, took over the tour as being an aerial parade to the famous Glidden automobile tour of many years before. The Glidden tour had contributed something to the business of building and selling automobiles. Why could not an aerial Glidden do the same thing for the aircraft industry? The idea was greatly extended, and Mr. E. H. Ford, who at the time was chief engineer of the Ford Motor Company, took over the tour as being an aerial parade to the famous Glidden automobile tour of many years before.

Another interesting occurrence taking place at about the same time was that, on October 8, Larry Manning, Ford pilot, took off from Dearborn for Manassas, N. Y., with the first airplane sold by the Ford Motor Company to outside interests. The plane was being delivered by Manning to the John W. Wadsworth Company, of New

York. Little more than 20 years before, John Wadsworth had become one of Mr. Ford's first automobile dealers. Now, he was buying his first airplane.

From the Wadsworth job on, development of the Ford airplane came about through constant evolution, rather than jumping from one model to a succeeding model. Most of the changes, or refinements of detail, were minor and were placed in effect on the production line whenever it occurred to the company to adopt them. This, of course, caused considerable confusion, with the result that it was decided to build the planes in units of 10, making the conformity changes after each unit.

However, there was one basic change that was announced during December of that year that seems special mention. We speak of the introduction of the three-engine plane. The first tri-engine Ford was an eight-passenger craft, using Wright J-4, air-cooled engines. It was the first Ford to which air-cooled type engines were applied, the single-engine planes all having been equipped with 400-hp. Liberty. Although it was announced in December, 1925, the tri-engine plane was not to be test flown until the following June.

In the latter part of December the Ford company sold four Liberty-powered Pintos to Florida Airways, Inc., the first large order the company had received. The planes were used to start a passenger line between a number of Florida cities, one of the first, if not the first, small passenger line operating on regular schedule within the United States. The undertaking, however, proved a bit too ambitious for the state of public arrangement then existing, with the result that the company was sent out of business.

On Jan. 10, 1926, Postmaster Charles C. Kellogg, of Detroit, announced that the Ford airplane would begin carrying the mails on Feb. 1. Seven days later, however, on Sunday morning, Jan. 17, the Ford airplane plant was destroyed by fire, necessitating postponement of the service until Feb. 15. The fire loss was estimated at about \$300,000. These airplanes, including a newly completed tri-engine craft—the first built by the company—and the "New Preflight" (this Scout had sold to the Post Office Department nearly two years before, was lost in the fire. In addition, the toll included 13 Wright "Whirlwind" engines, and a new Packard geared engine. Then, of course, there was a loss of thousands of dollars in intricate and valuable machinery, tools, etc. No statement was ever made as to how the fire started.

Case Feb. 15, and inauguration of the Ford mail



Edsel Ford starting the plane owned by the Red Ford Airplane Reliability Tour, September 15, 1939.



line. That was a great day at the airport, and a significant one for the American air mail system. Since the New Orleans-Pittsburgh route was popularly regarded as a means of expediting passage of express mail, the Ford line can be regarded as the first truly domestic express air mail line to operate.

Lansdown G. Peitz, Ross C. Kirkpatrick and Irene W. Barford were the pilots on whose regular runs the first mail route were carried. Peitz made the round trip eight to Cleveland, picking up and dropping a bouquet of flowers near Bryan, O., where "Art" Smith, noted mail pilot, had been killed just a week previously. Kirkpatrick took off at 3:15 p.m. for the day's Chicago run, and Barford flew the reverse flight, from Chicago to Dearborn.

Henry and Edsel Ford accepted the first loads of mail from Postmaster Kellogg and personally placed them aboard the bags planes. Among those who looked on during this history-making incident were William B. Mayo, Governor Alex. Groves, of Michigan, Allen G. Sought, State Commissioner of Public Safety, W. Irvine Glover, Second Assistant Postmaster General, E. B. Wadsworth, Superintendent of Contract Air Mail for the government, Colonel E. M. Harrod, of Denver, Colo., and others.

A short time after departure of the planes newspapermen found several of the group in the Dearborn administration offices waiting with the Fords. They were asked for statements.

"These are 13 air mail contracts signed up," Mr. Glover said, "and to Mr. Ford goes the honor of being the first to undertake this new type of mail transport. It is really the first step in a new epoch. The government-owned air mail lines are opening with great success,

but they are far from giving the country generally the advantages desired by this kind of service. We have witnessed today the first step in the winning of a network of air mail delivery all over the United States."

"Well," said Mr. Ford, "I sent a letter on this first mail plane from Detroit to my friend, Thomas Edison, in which I told him I thought it was a real step forward. Of course the operation of our planes between here and Chicago for nearly a year has proved to us the value and safety of the service. If that same service can be given to all of the people in this country we will at least have gained a lot of time to think before we answer our letters. But, seriously, anything that can cut down the time of operation in the work-a-day world is just so much more added to the credit side of business and life is gained."

"Of course," Mr. Ford continued, "this type of mail service will grow, and it will succeed. The government is back of it. That means strict schedules and prompt payments on contracts. And with the type of planes built today there is no more danger of loss of mail than there is on the rails."

"The pioneering in plane building and operation is really paid. It has been given for men of business to take hold of the opportunity."

The fifth of this series of articles by Mr. Newell will appear in an early issue of AVIATION.

Left: The C. A. M. 6 "New Preflight" first run to the Glidden Reliability Tour, September 15, 1939. Right: A view of the Ford airplane line in the Ford Motor Company, Detroit, Mich. Below: A view of the Ford airplane line in the Ford Motor Company, Detroit, Mich.

BRIEFLY

Western Air Express started regular night routes over the Los Angeles area on July 19, using Boeing 747-100 transports. Night flights have been started only by Boeing airlines from the Grand Central Air Terminal.

W. H. Griffin and "Red" Hargrave, of Ryan Aircraft Corporation, are in an extended sales tour through the eastern part of the country.

C. C. Anderson, vice president, is in the Montreal Airport, Des Moines, Ia., July 20, 20, and 21.

Van Lear Black has announced his intention to attempt a second flight from London to Tokyo in January.

The first of a series of flying clubs has been organized by the Washington, D. C., Flying Service.

M. S. Lowe and Art Wittenberg, are touring Minnesota and Wisconsin for the American Eagle Aircraft Corporation.

The Walter M. Murphy Aircraft Company, Murphy Airport, Los Angeles, Calif., has acquired the California Airways, Inc., of the same address.

Parks Air College pilots met students during July 26, 1959 for 10 days of scheduled member.

Test flights of the Armstrong, new light sport airplane to be built at Youngstown, Ohio, will be made soon, according to Jack Viles, president of the Ohio Aero Manufacturing Company.

The Goodwin Zeppelin Corporation has been granted patent rights on a rigid airship hull design as well as on the construction of the rigid airship structure.

A Hamilton, Ohio, branch of the Goodwin Zeppelin Corporation has been organized by Louis J. Paul, chief pilot, and representatives of the Hamilton City and representatives of the Hamilton City and representatives of the Hamilton City.

The Standards Flying Club, composed of members at the staff of the United States Bureau of Standards at Wash. D. C., has been organized at Wash. D. C. and will be ready for flight soon.

An eight-place commercial color airplane designed by Louis L. DeJong, of the DeJong Aircraft Corporation, is under construction in San Clemente, and will be ready for flight soon.

Aircraft weather reports are being broadcast daily at noon by the National Broadcasting Company.

Delta Air Service, Inc., of Monroe, La., has been flying service of Eastern La., have merged and the capital has been increased from \$500,000 to \$250,000. A weekly passenger service has been started between Jackson, Miss., and Dallas, Texas.

Two ex-captains of Waco have been shipped to the American Aircraft Corporation, Los Angeles, Calif.

A sport plane should which permits sport plane on plane engines from inter-

fering with the reception of radio signals has been acquired by M. H. Iverson, communication engineer for the Universal Aviation Corporation.

Ryan transports have been purchased by two large companies—Standard Oil Company of Ohio and the Army Air Corps, Dayton, Ohio.

Universal Aviation Corporation has not a training plane in a 90-day period will have a 100-hour flight instructor in service. H. G. Gibson is the pilot. He is accompanied by several students.

Universal Aviation Schools have purchased an American Eagle training plane with Kinner engine.

Aircraft Corporation of California, a company specializing in the design of aviation companies, reported a net income of \$104,913 for the first six months of operation.

Sullivan Aircraft Company Wichita plans to test two models of a new type low-wing monoplane over August 1.

New business contracts by the various companies of the United Aircraft Corporation during 1959, reported to approximately \$30,000,000, according to W. H. Griffin.

Compressed air will be used in the T-1, has been arranged for some in the adjacent quarters of the consolidated air passenger flight office at the Pullman House, Chicago.

Dallas Airways, Inc., has added a Flying Club to its fleet.

Flight instructors of Universal Aviation Schools may now be distinguished by characteristic uniforms consisting of military uniforms, blouse of some color, and a dark blue vest and aviator cap.

A hangar and gate plant at the Oakland Airport, California, 100,000 sq. ft. was burned with a loss of \$150,000.

AERONAUTICAL CALENDAR

Aug 1-10	International Agency Exhibitions on the history of flight, aircraft design and development, at the Los Angeles Convention Center, Los Angeles, Calif.
Aug 11-15	Aviation Week, at the Los Angeles Convention Center, Los Angeles, Calif.
Aug 16-20	Aviation Week, at the Los Angeles Convention Center, Los Angeles, Calif.
Aug 21-25	Aviation Week, at the Los Angeles Convention Center, Los Angeles, Calif.
Aug 26-30	Aviation Week, at the Los Angeles Convention Center, Los Angeles, Calif.
Aug 31	Aviation Week, at the Los Angeles Convention Center, Los Angeles, Calif.
Sept 1-5	Aviation Week, at the Los Angeles Convention Center, Los Angeles, Calif.
Sept 6-10	Aviation Week, at the Los Angeles Convention Center, Los Angeles, Calif.
Sept 11-15	Aviation Week, at the Los Angeles Convention Center, Los Angeles, Calif.
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Nov 21-25	Aviation Week, at the Los Angeles Convention Center, Los Angeles, Calif.
Nov 26-30	Aviation Week, at the Los Angeles Convention Center, Los Angeles, Calif.
Dec 1-5	Aviation Week, at the Los Angeles Convention Center, Los Angeles, Calif.
Dec 6-10	Aviation Week, at the Los Angeles Convention Center, Los Angeles, Calif.
Dec 11-15	Aviation Week, at the Los Angeles Convention Center, Los Angeles, Calif.
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Dec 21-25	Aviation Week, at the Los Angeles Convention Center, Los Angeles, Calif.
Dec 26-30	Aviation Week, at the Los Angeles Convention Center, Los Angeles, Calif.

New Firms Announced

CITY BRIDGE AIRWAYS, Inc., 2018 Third Avenue, Bronx, New York City, capital \$200,000, by Louis J. Paul, president, and Arthur K. Kinner, vice president.

DISCOVERY FLIGHTS SERVICE, Inc., 1600 E. 10th Avenue, Suite 100, Los Angeles, California, capital \$100,000, by Fred Anderson, president, and Fred Anderson, vice president.

CONQUEST AIRCRAFT CORPORATION, 1000 E. 10th Avenue, Suite 100, Los Angeles, California, capital \$100,000, by Fred Anderson, president, and Fred Anderson, vice president.

AVIATION CORPORATION OF CALIFORNIA, 1000 E. 10th Avenue, Suite 100, Los Angeles, California, capital \$100,000, by Fred Anderson, president, and Fred Anderson, vice president.

UNIVERSAL AVIATION SCHOOLS, 1000 E. 10th Avenue, Suite 100, Los Angeles, California, capital \$100,000, by Fred Anderson, president, and Fred Anderson, vice president.

STANDARD OIL COMPANY OF OHIO, 1000 E. 10th Avenue, Suite 100, Los Angeles, California, capital \$100,000, by Fred Anderson, president, and Fred Anderson, vice president.

ARMY AIR CORPS, 1000 E. 10th Avenue, Suite 100, Los Angeles, California, capital \$100,000, by Fred Anderson, president, and Fred Anderson, vice president.

FLYING CLUB, 1000 E. 10th Avenue, Suite 100, Los Angeles, California, capital \$100,000, by Fred Anderson, president, and Fred Anderson, vice president.

AVIATION WEEK, 1000 E. 10th Avenue, Suite 100, Los Angeles, California, capital \$100,000, by Fred Anderson, president, and Fred Anderson, vice president.

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Certificates of Approval

Granted Five Schools

(Continued from page 232)

Five of four months for private schools, are months for Licensed Commercial schools and expires months for Training schools.

In addition all flying instructors must now hold a rating from the Department of Commerce as "Private Instructor" before being permitted to give instruction in approved schools. This rating may be issued to transport pilots who apply for each rating and may not be issued to pilots of the Department's own instructors. All instructors now and the flying instructor in approved schools must be placed before the Commerce Department for the particular purpose.

The new school regulations require, too, that the minimum used field shall be one having at least 1,000 ft. of effective landing area in all directions, with clear approaches, or it shall have landing strips not less than 200 ft. wide, permitting landing at least eight directions at all times, no landing strip at less than 2,000 ft. in effective length, or it shall have two landing strips, one of which is aligned with the general direction of the prevailing wind, and the other at least 90 degrees to it.

At least 100 ft. wide and not less than 5,000 ft. in effective length and use to cross or converge at an angle of less than 90 degrees.

TECHNICAL FLIGHT SCHOOL, Inc., Kansas City, Mo., capital \$100,000, by James S. Taylor, president, and James S. Taylor, vice president.

FLYING CLUB, 1000 E. 10th Avenue, Suite 100, Los Angeles, California, capital \$100,000, by Fred Anderson, president, and Fred Anderson, vice president.

AVIATION WEEK, 1000 E. 10th Avenue, Suite 100, Los Angeles, California, capital \$100,000, by Fred Anderson, president, and Fred Anderson, vice president.

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Darken Windows

For Blind Flying

(Continued from page 232)

ST. LOUIS (AP)—Commercial pilots are being urged to use darkened windows when flying in low visibility conditions.

The Federal Aviation Administration is urging pilots to use darkened windows when flying in low visibility conditions.

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Ryan Survey Shows

135 Firms Own Planes

ST. LOUIS (AP)—Through a survey of 135 firms, the Ryan Aircraft Corporation has found that approximately 135 large business corporations now own airplanes for the use of their executives, engineers, and for the transportation of parts, supplies, and other cargo.

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Tailbot, Henshaw Group

Adds to Interests on Coast

(Continued from page 232)

LOS ANGELES (AP)—Purchase of a general aviation firm by the Henshaw Group, Los Angeles, Calif., has been announced by the Henshaw Group.

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Report Henshaw Firm

By Various Plane Firms

CHICAGO (AP)—Henshaw Manufacturing Co., Chicago, Ill., has been reported by various plane firms.

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try, including two pilots, a commander and assistant navigator officer, an engineer and four mechanics, and a radio operator.

The plane's instrument board includes two pitot-statics, a compass, a pitch and yaw indicator and speed arrangements with integrating and engine gauges.

The six gauges housing the engine are bladed through a very small passageway within the wings. The aerobics are able to stand up while working around the engine. A small door leads from the cockpit up to the wings. Each engine is fitted with a four-bladed propeller. Details of the new plane will be published in a later issue.

Polish Firm Reports Record For Six Months

WARSAW (PULASKI)—More than 4,600 passengers, more than 30,000 lb of mail and almost 545,000 lb of freight were carried by the planes of the "Lot" company in the first six months of its existence. These data are a significant fact. Lot is the organization in which all civil transport flying is carried out in Poland, under assistance of the government. The indication of previous air service under the Lot banner was the act of the reorganization of the Ministry of Communications which opened as a part of its activity.

Included in the reorganization was the Aerodrom company, which operated lines between this city and Chicago, Vienna and Danzig. Similar changes have been made. The first long-haul flights at present. Six Fokkers made in Poland under license have been added to the fleet and it is expected that Fokkers eventually will replace the other type. It is planned to introduce soon a service to Moscow and Leningrad.

Italy Aids Petrol Firms

ROME (PULASKI)—Following up its petrol companies and, as possible, the practice of private flying in Italy the government has issued permission for the use of low-level flights to higher planes of both Italian and foreign ownership. This means that all the service and repair facilities provided by the government's well-equipped airports will be at the disposal of the private and touring pilot at low cost.



Showing the flag, during an address of Lido Conference during 1935. Note the bridge connecting the plane to bank of the wing.

MacCracken Says U. S. Leads

BERLIN (PULASKI)—The United States now leads the world in commercial aviation, according to William P. MacCracken, Jr., Assistant Secretary of Commerce for Aeronautics in the United States following a survey of the aviation industry in this country. Germany was the leader for a good number of years when a prize and a half, according to Mr. MacCracken, and still remains in some departments, but in general the United States has improved itself. The German system was praised and it was admitted that the American system is naturally efficient. The United States is particularly strong in the class of village air airports and action of private flying.

British Recognize Air Insurance Group

LONDON (PULASKI)—The aeronautical insurance interests of Great Britain have been given official standing by the British Air Ministry and were previously handled only by the Government through its own officials. It is stated now on new rates to the insurance companies. The announcement of this new relationship between the Government and the underwriters, and of the recognition of a new responsibility by the British Aviation Insurance Group, a co-operative underwriting association, was made on June 28.

In the longer term, privately owned airplanes will be examined by an independent body when their contract applies for a renewal of registration by insurers on the supply of the insurance group. The fee paid by the owner at the place will be received directly by the underwriters, and it is hoped that the new plan shortly will make it more men permitting the reduction from the present charge of four shillings (£5.00) for each renewal of an aircraftworth certificate.

The office from which this work is handled will be located in the building recently by Lloyd Register of Shipping, the body which is in charge of the work of the whole Merchant Marine, and as operation between the aircraft and the insurance, and it is hoped that with their long experience in aircraft construction and classification work, is probable.

Mexico Authorizes Four New Airlines

MONTREY (PULASKI)—Air passenger and freight service between nearly all of the larger cities of Mexico will be in regular operation within the next few months, if the proposals of concession which the government has granted for three periods are promptly carried out. In addition to the regular lines now in operation, concerning border points with Mexico City, four additional concessions for new lines, representing more than 3,000 air, have just been awarded by the Department of Communications and Public Works. Each concession is for a period of 20 yr, and it is required that modern airplanes and airports be constructed at all landing places. To be granted plans will be used. The fees are supposed to be completed by September 1.

Three of these concessions were granted to Fernando N. Gonzalez. One route will be from Mexico City to Los Angeles, Los Angeles, and San Francisco, California, with stops at Santa Barbara, San Diego, San Jose, Guaymas, Ciudad Guzman, Colima, Mazatlan, Tepic, Manzanillo, Culiacan, Uruapan, La Paz, Santa Rosalia, Rosario, San Quintan and Ensenada.

The second line will link Columbia and Sonora on the Colorado frontier, with landings at Zimapan, Aguascalientes, Pachuca, Saltillo, Coahuila, Toluca and Tijuana. The third will connect Mexico City with the West Coast port of San Diego.

Permits to operate a mail, passenger and freight service between the Mexican capital and United States on the United States border was issued to Maria Gomez Uruapan, representing the Alamosa Airlines. This line will serve the cities of Guaymas, Culiacan, Tepic, Mazatlan, Toluca, Aguascalientes, Zacatecas, Tijuana, Nuevo Laredo, Tijuana, Tijuana, Chihuahua, Villa Ahuesmala and Guadalupe.

Poland Preparing Conference

WARSAW (PULASKI)—The Polish Government is preparing to hold an international aeronautical conference to be held here October 4. A proposed agreement, relative to air navigation, and the responsibility for carriage of mail and freight also will come before the conference.



Improved DeWalt Wood Cutter

IN ORDER to meet the demand for greater speed and higher production rates, a new and improved type of the Model D "Wonder Worker" has been developed by the DeWalt Products Corp., Los Angeles. This machine is an electric wood cutter of the direct drive type. It is adaptable to a number of uses in various industries. The Model D machine has been modified in such a way as to provide delivery of fully 50 per cent greater power to the work. This is made possible by the use of a new type of motor, having greater power on full load and less temperature rise. This motor is a 5-hp. two- or three-phase type.

According to the manufacturer the new machine will run 4 in. in the rate of 50 in. per min. It will cut cast iron material and can be switched instantly from cross cutting, to ripping without turning off the power. The machine is also adaptable for ducking, leveling, beveling and other operations.

A further improvement in this model is the placing of the flat plate, having degree markings and push scale, directly in front of the operator for easy adjustment in angle or bevel cutting. This flat plate is marked in such 45 deg. so that the operator is enabled to find such angles quickly. The motor is locked securely and secured in any cutting position by means of a positive locking device and a convenient hand lever so that all changes in adjustment are made instantly.



The Improved Model D DeWalt "Wonder Worker"

and accurately. Changing the tool attachments on the motor of the motor requires only a few seconds of the operator's time.

The Model D machine can be moved from place to place of secondary. It weighs 340 lb. and is fitted on a table 28 by 59 in. The cutting tool is completely guarded in all possible positions, providing safety for the operator at all times.

The company also manufactures a number of other machines for wood and metal cutting of the variety necessary in aeronautical work.

Fairchild Landing Light

PRODUCTION is now underway on the streamlined bulb-in-the-wing landing light developed by The Fairchild Airplane Manufacturing Company, Farmingdale, L. I. This device, which previously illuminated the plane, was usually created by landing lights, is available for installation either in new planes or in planes already built. It is housed completely in the wing.

This landing light is adjustable by three distinct movements. The bulb and socket may be moved in a direction parallel to the leading edge of the wing or in



A landing light of the new type developed by the Fairchild Company

any other direction. By this means the reflector can be adjusted to any desired angle. These adjustments are extremely simple and when once set they remain fixed. Before going into production on this type of light the company made an test flight. The light is designed to cover a field of 130 ft. wide at a distance of 300 ft. ahead of the airplane. At that distance the field of a few of such lights are almost completely merged. The focus is such, also, that is a vertical plane the ground is fully illuminated when the tail of the airplane is down and there and other reasonably high objects are illuminated when the tail is up. The purpose of this light is to illuminate the horizontal and vertical fields adequately for safe landings and take-offs. According to the manufacturer this is accomplished perfectly in distances of 300 to 800 ft.

Luft Altimeter

ALTIMETERS built by the Luft Company Pioneer Co. German manufacturers of scientific instruments, are available in the United States by Ford Motor, 3255 West 86th Street, Cleveland, O. The 25 in. dial type has a range of 0 to 15,000 ft. and is calibrated according to the United States standard atmospheric pressure and compensated so as not to be under the influence of any change in temperature. The dial can be rotated to take care of changes in barometric pressure. The figures and pointer are illuminated by red light.

This 25 in. altimeter has been adopted by several U. S. aircraft manufacturers and is also used in many airplanes as a reserve altimeter to check on the instrument on the regular board. It is also adaptable to use as a colts altimeter. The weight of this instrument is 14 lb.

Where the Hexhanger proves its worth—



*The New Western Air Express Airport, in Los Angeles,
designed and now being built by the William Eaves Co.*

AIRPORT construction, in many ways, has failed to keep pace with the rapid development of aviation.

This is particularly true of hangar construction where, in most cases, planes are housed in buildings which are inadequate to the special needs necessitated by modern airplane design.

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The Hexhanger embodies an equilateral triangle in its design and provides safe accommodations within its steel and concrete walls for twenty-five per cent more planes than the conventional type hangar now in general use.

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We will be glad to furnish responsible organizations an analysis of their airport problems and place our architectural and engineering staff at their disposal for this important work.

The Hexhanger structural design, designed to house a D-11 airplane. Refers to such hangars, given with list of P. O. orders or by letter to Douglas Main Office.

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The Spartan C-3 Walker comes from this combination of essentials and from a company which realizes that high standards must be maintained, that last year's performance must be equaled and that beauty must be combined with utility.

Put the Spartan to work at any task. Let it be a commercial or pleasure trip. Compare its performance to that of a more expensive plane and you will discover its superior workmanship and dependability for more consistent and more economical work in the air.

Let us show you the Spartan powered with the Curtis Challenger and the Wright J-4 will be justified in regard.

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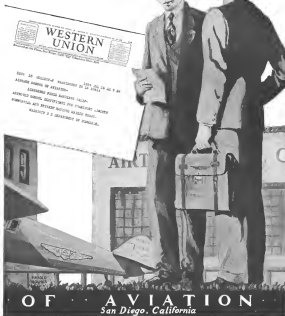
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Captain Frank M.
HAWKS

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The elapsed time from New York's Roosevelt Field to Los Angeles and back again was 44 hours, 48 seconds...actual flying time 26 hours, 46 minutes, 48 seconds...also a record. It was the first time in history that man had flown coast to coast and around in such remarkable time. To set these new marks across the skyways of the continent, the "Wasp" traveled approximately 5300 miles at an average speed of 144 miles per hour. The outstanding performance characteristics of the "Wasp" are thus again strikingly emphasized by conspicuous accomplishment.

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